Photograph Holeum



ERQ.



Jone 1950





+ HQ





MIKE

June 1950



Sodus







June 1950



Rochester Hosp.









Heinle













I.G.M.R.





Matten

Aug. 1950 AL Conv. Philadelphia





HAQ Tress Will





HCQ
Tressel
Willis Geissinger
Willis Geissinger
Tressel
Micky Adams
Agren Leitzell
Mrs. Tressel.





Aug. 1950. Firemen's Convention - No Gas. Ivan Walker-HMQ-Chief DeWitt-Folice.



Last P.R.R. Pass, Train - Aug. 1950



Visconsi Hunting



- Aug. 1950



Sept.



Wisconsin - on Duloth Hunting Trip



Near Boudette, Minn,

Sept.



T Home







TE, MINN.



Near Doluth.

THOMER Collins















Doluth-Superior Bridge



Oct. 1950.



Doloth- Bridge





Showmeors, Wis





Mary, Ted, Mora, Bucky



Buck, Nell, Nora, Joe.



Ed -Mr orthe



15, Wis oct. 1950





rn, Bucky



Joe.



Edemis Kelly, Mrs. PDR, Gill (one of the Duluth hunters) Hartley
Photo by PDR (1930?)



2 4 51 Hank's Ford



Farls





HMQ 1950

10

tca 1751

华



1950 - 1951 Fords



Ridge Road to Renovo







Down 4

Labon Camp-Well- Swartz Farm



Looking N

chovo





Down 4500 ft,



camp-Buck-Well





N





3-20-51 SWOFTE FORM



Kettle Cre



3-31-51 Grea. Valentine - 82 - and Days







Kettle Creek - E



82 - and Days





Shot in 5/10/ perday - 64: thru gas 5/12

P-Joe Flanagan-or Petc. Gerald Robbins - Borland (Nysm Gest)



1 Gas

TAMARACK.



Shot in 5/10/5/- 121/2 Million co.ft.
perday- 6456ft. - Drilled a few feet
throgas 5/12 but No more flow.

or Peter orland (NYSN Geol)





5/13/51-ERQ

5-18-51 at Jacobus Well on Mt. at





W. fr



Turkey "
on Cabot
truck
rescuing
Ford



Buck in K. Creek



EN

s Well on Mt. at Kettle Creek



W. from Well





E with Ford !!



Creek



1/51

Cabot Stack.



Valves



7/13/51

SW.

M



c/₅₁





Otis Co. Laying
4 pipe to Meter
House + Well
Turned into Line
6-4-51

S W.



7/13/51



NE.



6/15/51 - DeLuxe



Antrach Co



6/17/5/ Maloney Gorden



The G







Antiach Campus



The Glen











Ellen (Molone)
Molone
Antioch
1951
(Jone)







Fall 1951 - Heinie-Hank-Nan Peters.





Boughters' Wildgeres.



6/21/51 - Anniv. All Amer. Airlines







Mike - Wora - Bucky





mer. Airlines



Judy Royers - HCQ.



Hook-Judy-Mike-ERQ.

8 18 51



All Amer, Fishing Contest Sam Foresman - Q-D & Gillestie



N. to Renove



est Gillespie



The Sunflower Queen



36 Flowers



Sept. 1951
Decot to Thomps:
Playground. From
Countess to Burge



Sept. 1951

Deed to Thompson

Playground. From the

Counters to Burgess



166 Mi. + Pitts 群11,000,

OWERS



Sept. 1951
Decot to Thompson
Playground. From the
Countess to Burgess



to Pittsburghi #11,000,000,





RSQ Camp.
Mike Filler
Jack Toner
Whitie Wills
Frank Toner
Delbert West
Jake Toner











+ Bud Harman

Dec. 1951









(Nittany Photo)



12/31/5/

(Nittany Photo)

Burgess Hugh M. Quigley of Beilefonte receives the first official Little League Calendar from Jerry Kling, captain of Boughter's Giants, the 1951 champion of the Bellefonte Little League.

Looking on are Boyd Kling, the captain's father, and Team Sponsors Samuel U. Foresman, George N. Boughter, Elmer B. Keckler and Elmer Decker.

Mr. Quigley expressed his pleasure in receiving the calendar, which bears the illustration of a Little League pitcher about to toe the rubber while a runner on second base is poised to run. The Burgess praised team sponsors for their aid in operating the league, pointing out the recreational value to the youngsters of the community.

Jan.



Q swearing in Councilmen Nevin Swith,
Don Pardce Bill Ferres, Cal Troupe.

- 1st.Row Ellis Keller Allan Hoy Claire Lyons Bill Payne Frank Crissman -Bob Willard - Charles Garbrick - Joe Ceader - Gilbert Mattern -Williams - John Fisher - Sam Rhinesmith - Guy Hosband - Roy Myers - Leo Tomer - Jared Eminhizer - John Kline -William Schmidt. 2nd. Row -Charles Cruse - John Hines - Williams - Ruth Altenderfer - Lois Kirk Totsock - Shoemaker - Totsock - Verna Ardery -Ruth Woods - Margaret Bullock - Helen Eckenroth - Helen McClure -Trene Koontz - Margaret Eckenroth - Mabel Stover - Edna Solt -Lillian Koch - Elinor Cook - Alice Walizer - Jennie Straw. 3rd. Tow- Charles Eckenroth - Forrest Tanner - Ferguson Parker - Louise Straub -Lyde Toner - Claire Shope - Ruth Rapp - Mary Schad - Nell McClellan -Marguerite Lambert - Sarah Wetzel - Catherine Allison - Ethel Wetzel -Ruth Parsons - Katherine Wion - Ida Brandman - Mary Warfield -Stella Whittaker - Katherine Conaghan - Sarah Rishel - Margaret McDonald Rebecca Fleming - Vivian Lutz A Timmy Hafer - Cecil Walker - George Musser - - PAUL RUMBER FR Buth Gamble - Helen Chambers - Helen Beezer the Row-Helen Glenn - Marie Walsh - Sara Kellerman - Mamie Shope - Mary Kline -Catherine Love - Margaret Cooney - Helen Hurley - Desales Walsh -Bella Johnson - Josie Decker - Hazel Johnson - Martha Barnhart -- Margaret Gilmore - Elizabeth Walker - Hester McGinley -John Harper - Graham Hunter - Carl Deitrich -5th. Row - Orvis Sholl - Harvey Steele - George Eminhizer - Andy Saylor - Bob Garman - Lester Musser - Fleming - Burton Gehret -Nancy Hunter - Mildred Johnson - Juth Waite - Mary Rankin - Sara Longwell - Ruth Coxey - Ruth Kline - Dorothy Jenkins - Eleanor Parker -Mary Mott -- Eugene Rowe - John Payne - Henry Lowery . 6th. Row - Wilbur Morgan - Paul Wallory -Wilbur Morgan - Paul Mallory - - - Phil Barnhart - Harry Ott - Lew Wallace - Edward Garbrick - Allan McClellan - Jim Miller - Fred Yeager - Charles Krumrine - Fred Noll 9 manual The state of the s Ruth Johnson John Woods - Edna Kline - Ruby Eberhart - Pauline Johnson - Margaret Altenderfer - Susie Lambert - Celia Smoyer -Hazel Dickinson - Ruth Johnson - Margaret Garrett - Ermitrude Bricker -Marion Dukeman - Doyle Eberhart -
- Miscellaneous Marky Thompson George Mosely McKinley Overton Charles

 Hassinger Ben Swartz Luther Crissman Harold Ward Edgar Shirk
 Philip Shoemaker Louise Cruse Miriam Smith Ruth Wetzel Sarah

 Love Bernice Noll Isabel Miller Sarah Shuey Henrietta Quigley
 Marion Lutz AnnaShuey Margaret Pandlaton Joe Morrison Tom

 McClure Harold Kersteter Rube Spangler Hugh Taylor LeRoy

 Hartswick Basil Mott Charles Gates Roy Uhl Henry Keller
 Jack Dale
 Sitting in left Window Vince Taylor and Hugh Quigley

" right " - Ward Hile -



BHS in 1911 - Enlarged + trintel in 1952.
For (1913 Reunion in 1953)

Clifton F



ERQ, HCQ - Colleen Seabright



Dottie



HCQ, ERQ, HMQ



ERQ+ PDR at Red Born 6/16



Catskill

(F

Cliffon Pork 6/15/52



Dottie Clark's Apt





Catskill - 6-18-52 Catskill - 6-18-52 (From Rip Van Winkle Bridge





Cobin in NY 6-18-52 + Sharon













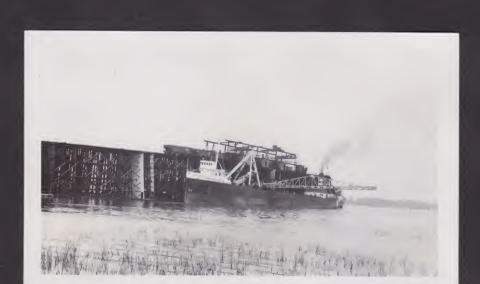
Sodus Point (High Water In Great Lake)











ERQ-BO

Fontono



1st.



ERQ-Beach - Sodus Pt.

Jone 1952



1st Prize Strob Dub Show-ERQ



But Jones



Cinder's Family

8-17-52 6 MKs. old



Jones



Born 7-4-52



Family



cinder









Lions Club + Polio Air Spray

9-



8-17-52



9-5-52



9-5-52



Bucky-11, Nicky-6, Remus









licky-6, Remus-2 mos., Mike-20.





1952 Ford No.11 - 1/15/52

Selt. 52-ROTC



Mike-201/2-Sept. 52



Oct. 19 2



Nicky-6 Remus-3Mas.







1952



Mov.

1952.

Honk-24

Bucky III

Grouse

Squirrel

405,







Aunt Dorothy-Nora-Buck-Ren







Hunt Dorothy-Nora-Buck-Remus



N.



N.W. (witter)



From 505 Nov. 1952





Dec 52









Dec.16,1



Austin O, Forst



Bill O Brien's Comp.

2 Do

कर

Dec. 16, 1952



Furst



n's Camp.



2 Does



Gene Bigelow Dick Shannon Bill Musser



Col. Ed. Sahli





I. G.M.R.

Q-Absenti
L. to R.-Top.

Egan-JahnsonHoghes-Jacobs.

Bottom-JahnsonVivian-BrandtWeidner.



Fenerty-Jenkins.

Davidson-Amalia
Schrum.



Hank + Adile Pik at Y. S. Fall 1952

Sept. 1952



Delication of Allegheny Q-P. Dubba



Dedication of V.F.W. Lights at Linn
+ Allegheny - Pam. Miller - Sally Hibbard
Q-P. Dubbs - N. Smith-Tink Justice C. Dewitt-Chas. Stover - R. Wilkinson.



G. Bigclow





Jan 1953, nea RiGenua-G.Bassi RiShannon-RiKe



Mar. 1953.



Jan. 1953, near Port Royal-RiGenua-G. Bassinger-Skat Brown-Rishannon-R. Kelleher-Q



Mar. 1953.







Mar, 28, 1953, Dad's Day "at OKE - Lee Davies





May, 1953,





id's Day "at OKE - Lee Davies - Q









May + June
1953



Mary +







Mary + Heinie









FORM BB-501-D

COMMONWEALTH OF PENNSYLVANIA

500M-2-51

SUBJECT:

4 May 1953

TO:

Lt Colonel Hugh M. Quigley

FROM:

Colonel Richard Snyder

Inclosed is the picture of the Selective Service Section taken at Indiantown Gap during your recent weekend conference. General Weber is desirous of each member of the staff having a copy of the picture for your personal file.

Left to Right

Bottom: LC Warren Weidner - LC HMQ - Col Ed Sahli - LtGen F A Weber - LC Paul Shrum - Maj. John Jacobs - LC Schwalm. Top: CWO Sam Ulmer - ? - Maj Bob Amalia - 1 lt John Vivian - Maj Don Brandt - 1 lt Jim Davidson - CWO John Marsicano - 1 lt Dick Jenkins - 1 lt Norb Fenerty - 1 lt Ben Hughes.

April 1953

Reading Club-20th Reunion



M. Love-G. Walker-D.
Valentine-M. Craig-W.
Orr-B. Grost-Jo ShefferO. Cliffe-ERQ-J. DenithorneC. Sieg-Peg. Warner





Class of

Sept 1950.



Class of 1913 - BHS. In 1913 - In 1953 - June 12-1953





Septing 53. Honey Harbor, Georgian Bay.



King's Boot + Schrecky



Skat-Andy-Curly-Jim



our b



Jim Bathurst Curley Bas Skat



Schrecky



our biggest



Jim Bathurst
Corley Bassinger
Skat Grown
Andy Cousineau





























Christmas-1953





Jan - 1957



Harter Grance Preserve



Ralph Hart Skat B-G G. Brown Jr.





Rolph Horter-Ken H.- Curley B-Skat B-Gene B-Q- Schreck.-G. Irran Jr.-

eserve



Ralph Genug - Bob Kelleher







Ralph Genua - Bub Kellehor





1954 - Safety Award 1953 - Midy Bashare to Q.
Alb. Knisely-Jeff McCartney-Chief Leo Orr- M Robb.



Selective Service General Conference U.S. Naval Air Station Norfolk, Yirginia 10 to 24 April 1954 9-5th Row.



The Legal Scotion" - Drew of a new 5.5. Law.



Aug. 1953 - Homer Collins-New House - Duluth



30th Am





30th Anniv







Mike-Grad.



Mike + Ma.

1954











e Mike others

















Muncy Dist. Scout Comporee



Phil Rey - Ardell Anderson-Dick Purnell- Bill Schwartz



Present from Scouts,





Scout Comporee





Ell Anderson-Bill Schwartz









1954







Painting 505



At Dave Kellers











Oct. + Nov. - 1954 - 536













Nov. - 1954 - 536 N. Wilson













Jan, 1955





Charlie Ream + Eddie





Jan, - 1955











Feb. 1955





Iron Porch From Ernie Brown, Mbg.





The Reimers

Feb. 1955.





B. Dubbs

Iron Porch From Ernie Brown, Mbg.





The Qs.

Feb. 1



NE.



NW.





Feb. 1955



W.



4-1-55 Miss America Jeff











H-1-55 Miss America Jeff McCartney

















Dear Mayor Anight apr. 2, 1955

Thank you so hery much for the warderful wellowe had for the equally wandesful Key to the City of Bellefonte.

2 was thrilled to death with it. I have also far heing

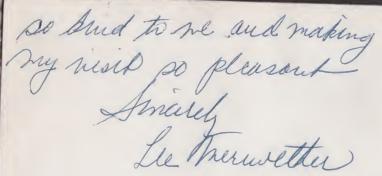








Lu Meiwethu Miss america Paglant off. Attantie litz N. J.







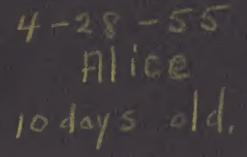




Jeff Mc Cortney











4-1-55



Lee Ann Meriwether Miss America - 1955







Stone for Beyon 5th













4-2-55 Istat. HMQJ New V-W at W-P AFE.





Special Right-hand Drive Effect
offinged by Lt. Joe Hous.

At Twin Atple AFTS! 1155 106 Woodrow St.







Apple HF15. 1955













Ens. H.C.Q. Newfort, R.I.











July-1955



Ens. H.C.Q. Whort, R.I.



Aunt Maudi











July-1955





Lt.Col.





Hank's Cardinal

July-1955





Lt. Col. + Ens. + Lt. + Remus - 3yrs.













At Woodrow St. Y.S,

July-1955





Labor Doy 1955 Foster Cuft + Q.



u st. Y.s.



J. Burger - P. Knisely - G. Boughter J. Decker - Q



Jan.







19 hter



Jan. 1956 at Y.S.



4,5,





Y,5.





Bfte. Feb. 1956









Feb.

























1951 50

May











1951 Super Crosley Station Wagon





















May 1956

The Doll House



MAY . 5



May











June 1956 The Bones,









Mike Witter-14









Mike's V ERRES

July-1956



Mike's V.W.
ERRES Erosley
HCR'S Ford
HMRIS Ford

Sesquicentennia







8-13-56 Kongaroo Kort

8-15-56



At Army Exhibit
Miss Penna (Ringler)

Ceized Killing

STON, W.

— Robert
who cono weeks
was a
ght in
his

r-old ent rder

Burgess Hugh Quigle fonte serving his sentence for failure to wear a ha Ti courts are being held ea



BELLEFONTE BURGESS H to fool Keystone Kops Bill

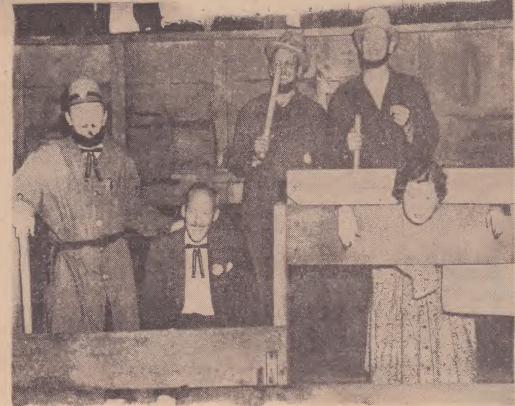
eized Killing

STON, W.

— Robert
who cono weeks
was a
ght in
his

er-old ent rder 'obb

> a in



Burgess Hugh Quigley of Bellefonte serving his sentence in the stocks for failure to wear a hat. Kangaroo Ti courts are being held each week in preparation for the sesquicentennial Aug. 12-18. Kate Emerik also was caught without a bonnet. The Keystone Kops are amused.



BELLEFONTE BURGESS Hugh M. Quigley languishes in the stocks for using false beard to fool Keystone Kops Bill Mussr, Ibra Breon and Dave Jodon, in Sesquicentennial Kangaroo Kort.

WANTED!





"Dobie" Dobelbower, alias The Rock Crusher

50,000 Job, as General People to Witness the Bellefonte Sesqui-Centennial Aug, 12 thru 18 at

Bellefonte, Penna.

Rides, 4 Mammoth Parades, Floats, Historical Displays, Atomic Energy Display, Army Display, Beard Contest, Shaving Contest, Old Fashioned Bargain Days-Aug. 8, 9, 10, Bands, Drum and Bugle Corps.

FUN FOR ONE - FUN FOR ALL

"Dobie" Dobelbower, alias The Rock Crusher

50,000 fe did a grand

People to Witness the Bellefonte Sesqui-Centennial Aug. 12 thru 18 at Bellefonte, Penna.

Rides, 4 Mammoth Parades, Floats, Historical Displays, Atomic Energy Display, Army Display, Beard Contest, Shaving Contest, Old Fashioned Bargain Days-Aug. 8, 9, 10, Bands, Drum and Bugle Corps.

FUN FOR ONE - FUN FOR ALL

REWARD

Opportunity to see "BELLEFONTE THROUGH THE YEARS" Pageant Spectacle each evening Monday through Saturday, Aug. 13 through 18, at 9:00 P. M. 500 in cast. Horses, Wagons, Carriages, Old Autos, Music, Drama, Dancing. Re-enactment of Civil War Battles, Indians, Hoop Skirts, Gay 90's, Roaring Twenties, Lighting and Scenic Effects. Professionally directed and staged. Nightly at ATHLETIC FIELD (off Bishop Street).

> Fireworks and Atomic Bomb Each Night at Pageant Coronation of Queen Monday Night, August 13 at Pageant

"FAITH OF OUR FATHERS" Sunday, Aug. 12, at 7:30 P. M. **Concert by United States Army Field Band** of Washington, D. C.

Non-Sectarian — Public Invited at No Charge — Athletic Field

BELLEFONTE, PENNA. AUGUST 12 thru 18

WANTED



"Dobie" Dobelbower, alias The Rock Crusher

50000 He did a grand

8-15-56







Chas. Tomkins-Lorna Kingler - Ji Faelkner - Krouse A+ Hospital

(2 Lions)





8/13-Parale-1921 Packed of Francis Jedon - Ralph Dobel bower-Nate Krouss-Sen, J. HDutt-R. Wilkinson Jr-Q.



8/13 Rotary - Q-RW Jr-Sen. Duff-Fryorks-Nikrauss-F. Zimmermon-(Earl Orr)





8/13-Pageant-Sen. Duff-R.W.Jr.-Miss Bite. - Doby-Miss Centre County-



Mrs.K.-J. Krumring W-Champ. Fail Sunday - Mrs. S.

Oct. 1956









About 1892 taken by SHR of SHR Shooting SHR





Mrsk, - J Krumring W-Champ, Farl Sunday - Mrs, S.

Oct. 1956



FIRST TO SIGN the birthday scroll for President Eisenhower at the Bellefonte Citizens for Eisenhower headquarters were Mr. and Mrs. Hugh M. Quigley. Workers in the County obtained signatures of well-wishers for the President.



MrsK-JKrumrins W-Chomp, Earl

MONDAY, OCTOBER 15, 1956

THE C

eterans, Draftees:

Gives



FIRST TO SIGN the birthday scroll for President Eisenhower at the Bellefonte Citizens for Eisenhower headquarters were Mr. and Mrs. Hugh M. Quigley. Workers in the County obtained signatures of well-wishers for the President.



EUCLID

HANNA COAL CO.



FIFTY-FIVE TON TRACTOR-TRAILER UNITS AT BRADFORD NO. 1 MINE NEAR CADIZ, OHIO

Coal from the Bradford open-cut mine is loaded into 55-ton tractor-trailer trucks to be transported to the Georgetown Preparation Plant where it is washed, dried and sized.

These tractor-trailer trucks are powered by 400 H.P. Deisel V-12 engines. They have a rated capacity approximately equal to that of a railroad car (55 tons). The overall length of this unit is 55 feet. It is 12 feet in width and, at its highest point, is $11\frac{1}{2}$ feet from the ground. The front tires on these units are $14:00 \times 24$. The rear tires on the tractor and the tires on the trailer are $18:00 \times 25$.

Similar but slightly smaller capacity trucks are in use at the Georgetown No. $12~\mathrm{Mine}$.

The coal is loaded, without being shot, by electric shovels having dippers of 9 cubic yards capacity.

HANNA COAL COMPANY

Division of Pittsburgh Consolidation Coal Company



1955

50 CUBIC-YARD SHOVEL

at Georgetown No. 12 Mine

of

Hanna Coal Company

Division of

Pittsburgh Consolidation Coal Company

These electric shovels are used to remove the earth and rock overburden from the coal seam. In a month's time, they will each remove as much as 1,600,000 cubic yards, or some 2,400,000 tons. If this material were to be loaded into open railroad cars, it would fill some 48,000 of them.

SHOVEL SPECIFICATIONS

Dipper Capacity	50 cubic yards
Total Height	130 feet
Total Length of Boom	120 feet
Length of Dipper Handle	60 feet
Lifting Power	400,000 pounds
Approximate weight 3,500,000 pour	inds (1,750 tons)

4,160 volts of electric power is delivered to the shovel by flexible cable.

The shovel has eight electric motors:

2— 425 H.P. Hoisting Motors

3— 125 H.P. Rotating Motors

2— 75 H.P. Crowding Motors 1—1,500 H.P. Driving Motor

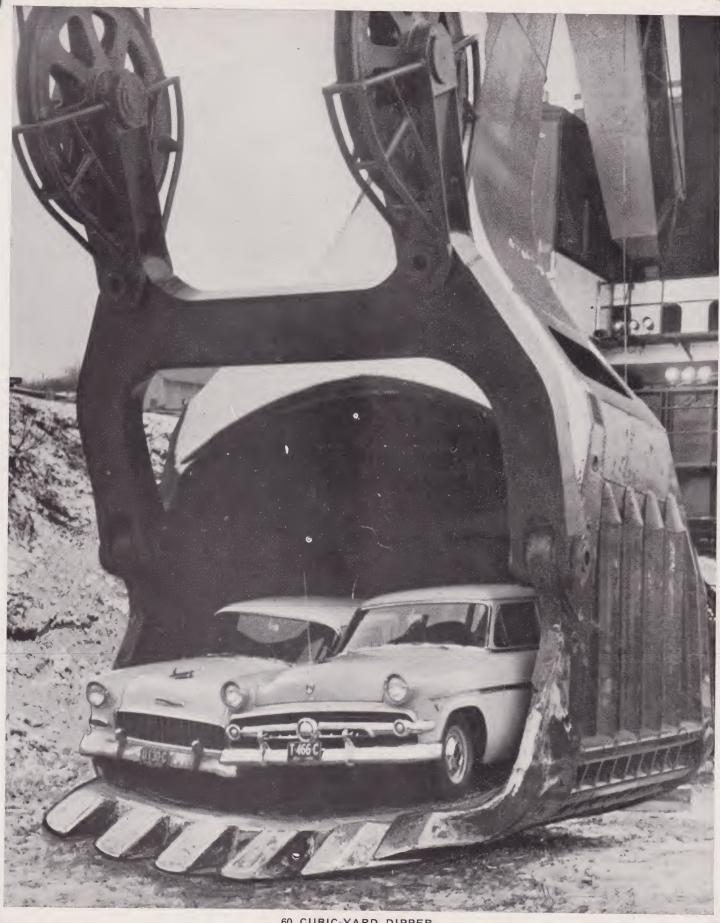
The shovel "floats" on four electrically controlled hydraulic cylinders, which keep it absolutely level while operating.

The shovel crawls under its own power at a maximum speed of 31 feet per minute. It is capable of climbing grades steeper than 20%.

The actual operation of the shovel is controlled by one man, who uses 2 foot treadles, 2 hand levers, and 1 whistle cord. One other control is used when moving the shovel from place to place. In addition to the operator, one oiler is used for lubrication and minor repair work, and, one shift per day, a ground oiler is employed. A bulldozer works with the shovel at all times to push fallen earth and rock to where it can easily be reached by the shovel.

The control on this machine is highly developed. Notwithstanding the weight handled and the lifting power available, the operator has, through the controls, a very delicate "feel" of the machine in all its functions, and he can, with extreme rapidity and great accuracy, maneuver all of its motions.

The depth of overburden which these shovels remove averages 80 feet.



60 CUBIC-YARD DIPPER

"THE MOUNTAINEER" -- 60 Cubic Yard Shovel

THE MOUNTAINEER is the world's largest shovel; it is the largest unit of mobile land machinery ever constructed in this country. It will be used to remove earth and rock overburden, with a maximum average of 90 feet in depth (under favorable contour conditions, the machine will be able to go to a top maximum of 120 feet of overburden), from the 4½-foot thick Pittsburgh coal seam in Eastern Ohio. Although the four large machines which Hanna has had in service for several years at its open-cut mines are among the largest ever built, they are not capable of removing overburden averaging as much as 90 feet in depth. THE MOUNTAINEER makes possible the recovery of millions of tons of coal not recoverable with the smaller machines.

INTERESTING FACTS CONCERNING "THE MOUNTAINEER" AND ITS OPERATION

DIPPER CAPACITY — The dipper, or bucket, of the machine has a capacity of 60 cubic yards (some 90 tons). One dipper-load would fill a room 10' x 20' x 8' high. The shovel will make a complete cycle of digging overburden, making a 180-degree swing, depositing overburden, and returning for another load once every 45 seconds. At this rate, the machine will handle approximately 14,400,000 pounds of material each hour — almost three times its own weight of 5,500,000 pounds (2,750 tons). The dipper handle to which the dipper is attached is 92 feet in length.

OPERATING RANGE — After each filling of the dipper with overburden, the top portion of the shovel revolves, and the load is deposited in the void left by the previous removal of a strip of coal. The shovel's 150-foot long boom and its 92-foot dipper handle make it possible to deposit this overburden some 290 feet away (about the length of a football field), and to stack it in piles almost 100 feet high. While it is true that the dipper on THE MOUNTAINEER (60 cubic yards) is bigger than the dippers on other machines currently in use by Hanna (46 cubic yards), this is not the principal factor which gives the new shovel its increased capacity. Principal factors contributing to this increased capacity are:

1. The 30-foot longer boom and the 32-foot longer dipper handle, which make it possible for THE MOUNTAINEER to remove greater depths of overburden, to deposit it further away, and in higher piles:

further away, and in higher piles;

2. The increased speed at which the shovel operates in all of its functions makes possible faster operating cycles.

HEIGHT OF MACHINE – From the ground to the top of the platform attached to the boom, the shovel rises 160 feet into the air – approximately the height of a 16-story building.

CRAWLER MECHANISM — Each of the 8 crawlers, or "cats", upon which the shovel stands and moves, measures 8 feet high, 23 feet long, and 54 inches wide, and each crawler weighs 60 tons. Each of the four pairs of crawlers is powered by a 250 H.P. motor. Operation of the crawlers and steering is controlled at ground level.

AUTOMATIC ELEVATOR — A unique feature of THE MOUNTAINEER is a 3-passenger automatic elevator. Such equipment has never been included in any shovel ever manufactured. This elevator is installed in the 6-foot diameter center pin around which the upper portion of the machine revolves. In boarding all previous machines of this kind, it has been necessary to climb a stairway and to stop the machine while the person on the stairway stepped from the stationary (lower) deck to the revolving (upper) deck. Stopping the machine is objectionable, and the hazard of a person's being injured by the machine starting prematurely, or by the person's attempting to step onto the revolving deck while it is in motion, has always been a problem. The elevator on THE MOUNTAINEER makes it possible to board the machine safely while it is in operation.

ELECTRIC MOTORS, POWER SUPPLY AND CONSUMPTION – THE MOUNTAINEER is powered by 16 electric motors, including the largest mill-type horizontal and verticle motors ever manufactured in this country. The total rating of its main A.C. motors is 4,650 H.P. This compares with the 1500 H.P. on Hanna's former "largest" machines. The total horsepower rating of all the motors totals 12,000 – a horsepower rating equivalent to the latest ocean-going freighters, with 80-foot beams, 663 feet long.

Due to the great power requirements of THE MOUNTAIN-EER, it was necessary to supply 7,200 volts of electric power to the machine. This is the highest voltage ever supplied to a machine of this type, the maximum ordinarily being 4160 volts. Total peak power demand of the machine will be 6,840 kilowatts. Electrical engineers estimate that, at full continuous operation, the shovel will utilize as much electricity as 5,200 average homes.

In order to control the tremendous power of THE MOUNTAINEER, engineers designed a system to fit necessary operating requirements and then processed literally hundreds of power formulae to determine the proper one to do the job. The use of electronic computors enabled engineers to accomplish this task in a period of two weeks. Manual calculating would have required an estimated three years.

LIFTING POWER – THE MOUNTAINEER has a total lifting power of some 500,000 pounds (250 tons). This, coupled with its operating range, means that it has the power to lift a platform containing 166 ½-ton automobiles 100 feet into the air, swing them through the air a distance of 290 feet, set them down on top of a ten-story building, and swing back for another load – all of this in 45 seconds.

HOIST CABLES – The two hoist cables which are used to pull the dipper upward through the earth and rock overburden are 2 ½-inch diameter, steel rope, each 580 feet long. The herringbone driving gears which operate the twin hoist-cable drum, are 13 feet in diameter. The hoisting operation is powered by four 450 H.P. Motors.

AUTOMATIC LEVELING DEVICE — THE MOUNTAINEER is equipped with four automatic, electrically controlled, hydraulic leveling jacks (one at each corner of the lower frame). The purpose of these jacks is to keep the revolving upper portion of the machine absolutely level while operating, even though the machine might be standing on uneven terrain.

AUTOMATIC LUBRICATION SYSTEM—Each of some 500 bearings of THE MOUNTAINEER is greased automatically. A pump, controlled by an electric timing device, pumps lubricants through a piping system to each of these bearings at pre-determined intervals. This provides much more efficient lubrication than that performed manually.

OPERATING PERSONNEL — Only one man is required for actual operation of THE MOUNTAINEER. He controls all operating functions of the machine by the use of 2 foot pedals, 2 hand levers and 1 whistle cord. In addition to the operator, one oiler is used to check the performance of the lubrication system and to perform minor repair work. As it becomes necessary to move the machine forward, one man on the ground operates the steering and crawler mechanism. A bulldozer works on the coal seam with the shovel at all times to push fallen earth and rock to where it can easily be reached by the dipper. The machine operates 3, 8-hour shifts per day.

8-hour shifts per day.

The machine is designed so that it can be operated from either of two operator control cabs, located at each corner of the front of the machine, almost 3 stories above the ground (it is presently equipped for operation from one cab). The operator's cab is equipped with electric heating, air conditioning, a sliding picture window, vinyl tile floor, and finished with imitation wood paneling.

COMMUNICATION SYSTEM — The shovel is equipped with telephonic communication connected to stations at various points on the machine. It is also equipped with short-wave radio equipment, by which communication is possible with all of the other shovels of the Company, with supervisor's trucks and automobiles, and with the mine office.

COST OF THE MOUNTAINEER – The total cost of the machine, ready for operation, was approximately \$2,600,000.

HANNA COAL COMPANY



Pat Josell - geo. Cooney + 17mp.



narine Caft. - Q - 5gt. - geo. Cooney Recruiting ofc. at A.L.



